CLAIMS

1. A composite article having an upper member of plastics material and a lower member of plastics material that together form an outer shell, and an inner core of filler within the shell.

2. A composite article according to claim 1 wherein the upper member has an outer layer of hardwearing, scratch resistant material.

3. A composite article according to claim 2 wherein the upper member has a layer of softer material underneath the outer layer for absorbing impacts occurring during use of the article.

4. A composite article according to any preceding claim wherein the upper member is an acrylic capped ABS material.

5. A composite article according to any preceding claims wherein the upper member is of uniform thickness.

6. A composite article according to claim 5 wherein the ratio of the thickness of the ABS layer to the acrylic layer is 9:1.

7. A composite article according to claim 6 wherein the upper member is 2mm thick.

8. A composite article according to claim 7 wherein the upper member is coated in a primer to aid adhesion to the filler material of the inner core.

9. A composite article according to any preceding claim wherein the inner core is made of composite filler formed from curing a resin-stone mix.

10. A composite article according to claim 9 wherein the resin-stone mix comprises a mixture of limestone, calcium carbonate, dicyclopentadiene (DCPD) resin and a catalyst.

11. A composite article according to any preceding claim wherein the inner core is of varying thickness throughout its extent.

12. A composite article according to any preceding claim wherein the lower member is made of ABS.

13. A composite article according to any preceding claim wherein the lower member is of uniform thickness.

14. A composite article according to any preceding claims wherein the lower member has a shape that conforms to desired variations in thickness of the inner core.

15. A composite article according to any preceding claim wherein sockets are provided in the underside of the lower member for receiving legs for raising the article above a surface on which it is installed.

16. A composite article according to claim 15 wherein the legs are an interference push-fit into the sockets.

17. A composite article according to claim 16 wherein sections of the legs located within the sockets have longitudinally outwardly extending

ribs that bite into the wall of the socket when the legs are inserted and assist in centering the legs.

18. A composite article according to any preceding claim wherein the upper and lower members are provided with means to aid locating the members relative to one another during moulding of the core.

19. A composite article according to claim 18 wherein the locating means comprise co-operating formations on the upper and lower members.

20. A composite article according to any preceding claim wherein the lower member is provided with means to release air trapped between the members during moulding of the core.

21. A composite article according to claim 20 wherein the air release means comprises holes in the lower member that are large enough to allow air out but small enough to prevent the filler from seeping out.

22. A composite article according to claim 21 wherein the holes are 1mm in diameter.

23. A composite article according to any preceding claim wherein the lower member is provided with means to assist distribution of the filler material between the members during moulding of the core.

24. A composite article according to claim 23 wherein the lower member is provided with an array of interlinked recessed regions that allow the filler material to flow freely between the members.

25. A composite article according to any preceding claim comprising a shower tray.

26. A method of manufacturing a composite article comprising providing a plastics upper member and a plastics lower member which together form an outer shell and providing an inner core of filler material between the upper and lower members such that the inner core is encased by the outer shell.

27. A method according to claim 26 further comprising the step of pre-forming the upper member and lower members and locating the upper member and lower member relative to each other to define a cavity corresponding substantially to the required shape of the inner core.

28. A method according to claim 27 wherein the upper member and lower member are formed by vacuum moulding.

29. A method according to claim 27 or claim 28 wherein the step of locating the upper member and lower member relative to one another is provided by co-operating formations on the upper and lower members.

30. A method according to claim 29 wherein the co-operating formations are a close fit with each other when the upper and lower members are fitted together.

31. A method according to claim 30 wherein the co-operating formations comprise cup shaped regions on each member and/or peripheral edge regions of the members of which one region receives the other region.

32. A method according to claim 31 further comprising the step of removing the overlapping cup regions after forming the inner core to provide a hole in the article.

33. A method according to claim 31 or claim 32 further comprising the step of removing the overlapping peripheral edge regions after forming the inner core to provide the article with a base.

34. A method according to any of claims 26 to 33 comprising the step of inverting the upper member so that an inner surface of the upper member is uppermost, pouring filler material onto the inner surface of the inverted upper member, inverting the lower member so that an inner surface of the lower member is lowermost, bringing the members together to distribute and confine the filler material therebetween, and hardening the filler material to form the inner core.

35. A method according to any of claims 26 to 34 wherein the filler is compressed between the upper and lower members prior to hardening.

36. A method according to any one of claims 26 to 35 further comprising the step of releasing air trapped between the members during moulding of the core.

37. A method according to claim 36 wherein the air is released by means of holes in the lower member that are large enough to allow air out but small enough to prevent the filler from seeping out.

38. A method according to claim 37 wherein the holes are formed by cutting off pips provided on the lower member.

39. A method according to any one of claims 26 to 38 further comprising the step of providing the lower member with means to assist distribution of the filler material between the members during moulding of the core.

40. A method according to claim 39 wherein the lower member is provided with an array of interlinked recessed regions that allow the filler material to flow freely between the members.